

REMARKS

Claims 1 to 23; 25 to 37; and 39 to 42 are pending in the application; claims 24 and 38 have been canceled.

Specification

The informalities pointed out by the examiner have been corrected (note that the numbering of the paragraphs according to the records of the undersigned differs from the numbers provided by the examiner - paragraph 0077 (examiner's notation) is paragraph 0076; paragraph 0105 (examiner's notation) is paragraph 0104; paragraph 0115 (examiner's notation) is paragraph 0114.

Claim Objections

The informalities in the claims 1 and 42 have been corrected.

Claim Rejections - 35 U.S.C. 112

Claims 17-21 stand rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite. Proper antecedence for the terms in question has been provided.

Rejection under 35 U.S.C. 102

Claims 1-3, 5, 7, 8, 15, 22, 23, 26, 27, 37, 40 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Osana* (US 5,632,125).

Claim 1 has been amended and now claims a structural element system for floatingly suspending framed flat elements (see paragraph 0052 of the instant specification) in the construction industry. The structural element system comprises:

post sections;

framed flat elements;

holding sections;

seals;

wherein, for thermally insulating the post sections from the framed flat elements, the holding sections are attached on the post sections, the framed flat elements are attached to the holding sections, the seals are adapted to form together with the post sections chambers for enclosing the holding sections, and, in the mounted state of the structural element system, the holding sections are enclosed in the chambers so that the holding elements have no direct contact with the framed flat elements.

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Such a configuration is not disclosed in the cited prior art reference *Osanai* (US 5,632,125 - hereinafter '125 patent). The prior art device differs from the present invention in that

- the '125 patent does not disclose any flat framed elements;
- the seals 22 with respect to Fig. 3 of the '125 patent are by no means comparable with the seals 22 according to the present invention - rather, the seals 22 can only be compared with the seals 44 and 46 (see, for example, Fig. 1a of the present invention);
- there is no thermal insulation provided according to the '125 patent between the post sections and the framed flat elements;
- the glass panels 4 of the '125 patent do not have a frame and are not attached to the holding sections - instead, they are clamped between the mullions or horizontal members and the front portion 17 by interposing back-up sealing members 20;
- the seals 20 of the '125 patent do not form any chamber with the mullions; and,
- accordingly, the holding sections are not enclosed in such a chamber.

The purpose of the present invention differs from the goal of the device described in the '125 patent. The idea of the '125 patent is to provide a building system that uses mullions and horizontal members having a single standardized structure to minimize the number of different types of mullions and horizontal members and to make administration easy in terms of production, stock and shipment and in terms of molds for producing the parts (see. col.2, lines 14 - 21 of the '125 patent).

The problem to be solved by the present invention is to provide better thermal insulation between the outer and the inner members of a construction system. To solve this problem, a system is provided in which the outer frame sections of framed flat elements have no direct contact with the receptacle 12 of the holding section and also no direct contact with the post section 10 (see paragraph [0064] "Fig. 1c illustrates..."). The thermal insulation proposed by the present invention is neither addressed nor taught by the '125 patent.

The only heat-conducting bridge between the frame sections and the holding section is provided by the holding bolts 20 which are positioned at a relatively great spacing to one

another and have only a small contact surface with the air, the frame sections, and the holding section, so that in practice they do not cause any heat loss, in particular, because the holding section in itself is insulated by means of the seal 22 and is therefore thermally insulated.

The receptacle 12 of the holding section is connected only by the insulating stays 12 and 14 to the fastening part 18, which is in contact with the post section 10. Post section 10 and seal 22 form between them a chamber K, in which the holding section is enclosed; this contributes to the extremely high thermal insulation of the system.

In contrast to this, there is no thermal insulation between the outer and the inner parts of a system according to the '125 patent. As can best be seen in Fig. 3 of the '125 patent, the front portion 17 is in direct contact with base portion 16, which is in direct contact with the mullion 10. All of these parts - the mullion 10, the base portion 16 and the front member 17 - are made from aluminum (see col. 3, lines 41-42; col. 3, lines 56- 57; col. 4, line 3; col. 4, lines 22- 23, of the '125 patent), so that the front portion 17, the base portion 16 and the mullion 10 form a bridge conducting heat extremely well between the outer and the inner side of a room provided with a curtain wall according to the '125 patent.

Moreover, the systems according to the invention and according to the '125 patent are not comparable in their design and function. The '125 patent describes a conventional "ladder construction" having vertical posts (mullions) and vertical bars ("horizontal members 30").

In contrast to this, the present invention is a "post construction" that allows floating suspension of framed flat elements. Bolts 20 serve for suspending framed flat elements 24 and 26 on the holding section comprised of the receptacle 12, connecting stays 14 and 16, and fastening part 18. The framed flat elements 24 and 26 are simply suspended from the bolt 20, wherein the legs 48 or 50 of the outer frame section 36 or 40 are provided with corresponding hooks or receiving openings. This type of attachment of the framed flat elements enables not only a particularly fast and simple assembly, but also has the advantage that the individual flat elements are suspended floatingly, which increases the stability of the resulting construction with regard to earthquakes significantly. Moreover, in this way individual framed flat elements can be easily exchanged as needed.

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The glass panels according to the '125 patent are held in the recess grooves 18, 38 of the supporting members 15. Changing the glass panels would necessitate disassembly of the whole construction above the respective glass panel to be changed.

In summarizing the above, according to the '125 patent

- the flat elements are clamped between the horizontal and vertical members of the construction,
- the flat elements are not suspended on the construction,
- there is no thermal insulation between the front portions 17 and the inner portions of the construction, and
- there is no chamber formed by seals and the mullion to enclose a receptacle.

Claim 1 as amended is therefore not anticipated or obvious in view of the '125 patent. The claims that comprises the features of claim 1 by reference are therefore also not anticipated or obvious.

Reconsideration and withdrawal of the rejection of the claims pursuant to 35 USC 102 are therefore respectfully requested.

Rejection under 35 U.S.C. 103

Claim 16 stands rejected under 35 U.S.C. 103 (a) as being unpatentable over *Osanai* (US 5,632,125).

Claim 16 should be allowable together with claim 15 that incorporates the features of claim 1 by reference.

Claim 33 stands rejected under 35 U.S.C. 103 (a) as being unpatentable over *Osanai* (US 5,632,125) and *Maroney* (US 3,055,460).

Claim 33 should be allowable as a dependent claim of claim 1.

ALLOWABLE SUBJECT MATTER

Claims 4, 6, 9-14, 24, 25, 28, -32, 34-36, 38, 39, 41, 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 22 has been rewritten in independent form to include the features of claims 1 and 24; claim 31 has been rewritten in independent form by including the features of claim 1; claim 32 has been rewritten in independent form by including the features of claim

1; claim 37 has been rewritten in independent form by including the features of claims 1 and 38. These claims and their dependent claims are therefore allowable.


CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or e-mail from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on May 30, 2005,


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Encl.: time extension petition (1 sheet)